

Exhibit B

*Claim Chart re Asserted Claims of '511 Patent and
Exemplary Accused Products*

Preliminary Comparison of U.S. Patent No. 7,952,511 to Toyota Vehicles

'511 Patent, Claim 1 Language	Toyota Cars Equipped with Bicyclist Detection, Pedestrian Detection, or Large Animal Detection ("Accused Instrumentalities")
Claim 1. A method for detecting an object, comprising the steps of:	<p>The Accused Instrumentalities implement a method for detecting an object (e.g., a bicyclist, a pedestrian, or a large animal such as a deer).</p> <p>Toyota USA, <i>Toyota Safety Sense 2.0 Pre-Collision System (PSC)</i>, YOUTUBE (Oct. 28, 2018) https://www.youtube.com/watch?time_continue=43&v=t67hDQyNriM&feature=emb_logo; Neal E. Boudette, <i>Deer Caught in the Headlights? Your Car May See Them Soon</i>, NEW YORK TIMES (July 20, 2017) https://www.nytimes.com/2017/07/20/automobiles/wheels/deer-caught-in-the-headlights-your-car-may-soon-see-them.html.</p>
defining expected characteristics of a scattered invisible electromagnetic radiation pattern to be detected at a receiver;	<p>The method implemented by the Accused Instrumentalities includes defining expected characteristics of a scattered invisible electromagnetic radiation pattern to be detected at a receiver.</p> <p>For example, "Using an in-vehicle camera and a radar sensor or a laser sensor that are designed to help detect a vehicle or a pedestrian in front of you, the Pre-Collision System 62 with Pedestrian Detection 69 (PCS w/PD) is designed to help you mitigate or avoid a potential collision."</p> <p>Also, "Bicyclist Detection...[d]uring daylight conditions, the in-vehicle camera and a radar sensor...work together to help detect a bicyclist ahead and will prompt you to take action using audio and visual warnings if a collision is likely."</p> <p><i>Pre-Collision System with Pedestrian Protection</i>, TOYOTA, https://www.toyota.com/safety-sense/discover/feature/pcspd (last visited Feb. 12, 2020).</p> <p>Thus, as described above, each Accused Instrumentality includes a radar unit, which transmits invisible electromagnetic radiation to be detected at a receiver located on the Accused Instrumentality. When the region intermediate to the path taken by the incident and the observed electromagnetic radiation is devoid of confounding factors and objects, a standard (<i>i.e.</i>, a control-variable-like, or a background) baseline signal set—that can be used for comparison purposes—is established. For example, one standard background might be the open road in front of the Accused Instrumentality. This baseline can be updated in essentially real time as, for instance, atmospheric propagation conditions change and evolve or road-painting schemes alter from one section of pavement to the next.</p>

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attenuating at least a portion of an invisible electromagnetic radiation field by a presence of an object within a path of invisible electromagnetic radiation,	The method implemented by the Accused Instrumentalities involves attenuating at least a portion of an invisible electromagnetic radiation field by a presence of an object within a path of invisible electromagnetic radiation. For example, the reflection, absorption, and attenuation characteristics of a bicyclist, pedestrian, or large animals (such as deer) will be different than the reflection, absorption, and attenuation characteristics of open road.
said invisible electromagnetic radiation propagating off axis with respect to the receiver toward a scattering medium; and	<p>The invisible electromagnetic radiation is propagated off axis with respect to the receiver toward a scattering medium.</p> <p>For example, invisible electromagnetic radiation is propagated from the radar unit integrated into the grille toward a scattering medium (e.g., a road) in front of the vehicle. On information and belief, the radar unit comprises at least one transmitter and one separate and distinct receiver. The invisible electromagnetic radiation is therefore transmitted off-axis with respect to the receiver, although both are included in the Accused Instrumentality.</p>
detecting the attenuation to indicate a presence of the object.	The method implemented by the Accused Instrumentalities involves detecting the attenuation to indicate a presence of the object. "This system uses radar to detect possible crashes and slow the vehicle down to avoid or lessen the impact of an accident." <i>How Does the Toyota Pre-Collision System Work?</i> , SAVANNAH TOYOTA (Jan. 15, 2019) https://www.savannahtoyota.com/how-does-the-toyota-pre-collision-system-work/
Claim 15. An apparatus for performing the method of claim 1, comprising:	As discussed above, the Accused Instrumentalities each constitute an apparatus for performing the method of claim 1.
means for storing expected characteristics of scattered electromagnetic radiation to be received at a receiver; and	<p>The Accused Instrumentalities include means for storing expected characteristics of scattered electromagnetic radiation to be received at a receiver.</p> <p>For example, "Toyota conducted a study with Virginia Tech University that involved equipping 48 vehicles in the Blacksburg, Va., area with forward-looking cameras. One other vehicle had a camera and radar. The vehicles were driven more than 350,000 miles, and the cameras recorded 596 real-life</p>

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	<p>encounters with deer on rural roads.</p> <p>“Toyota next sent Ms. Sherony and other engineers to the Whitetail Hall of Fame and Museum, a deer sanctuary in Grass Lake, Mich., where they set up radar sensors and aimed them at the dozens of deer milling around. The idea was to record images of all different sizes and types of deer, from every conceivable angle, running, walking and standing.”</p> <p>“In the end, Toyota collected more than 53,000 radar readings of deer and is using them to program radar sensors to recognize deer in a fraction of a second.”</p> <p>Neal E. Boudette, <i>Deer Caught in the Headlights? Your Car May See Them Soon</i>, NEW YORK TIMES (July 20, 2017) https://www.nytimes.com/2017/07/20/automobiles/wheels/deer-caught-in-the-headlights-your-car-may-soon-see-them.html.</p> <p>The recording of deer images suggests that there may be a database of masses and shapes constitutes means for storing expected characteristics of scattered electromagnetic radiation to be received at a receiver.</p>
a receiver for detecting the attenuation to indicate a presence of the object.	<p>The Accused Instrumentalities include a receiver for detecting the attenuation to indicate a presence of the object.</p> <p>For example, "Using an in-vehicle camera and a radar sensor or a laser sensor that are designed to help detect a vehicle or a pedestrian in front of you, the Pre-Collision System 62 with Pedestrian Detection 69 (PCS w/PD) is designed to help you mitigate or avoid a potential collision.”</p> <p>Also, “Bicyclist Detection...[d]uring daylight conditions, the in-vehicle camera and a radar sensor...work together to help detect a bicyclist ahead and will prompt you to take action using audio and visual warnings if a collision is likely.”</p>

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	<p data-bbox="543 271 1709 342"><i>Pre-Collision System with Pedestrian Protection</i>, TOYOTA, https://www.toyota.com/safety-sense/discover/feature/pcspd (last visited Feb. 12, 2020).</p> <p data-bbox="543 383 1911 444">As discussed above with respect to claim 1, the radar unit includes a receiver that detects the attenuation of at least a portion of an invisible electromagnetic radiation field to detect the presence of an object.</p>